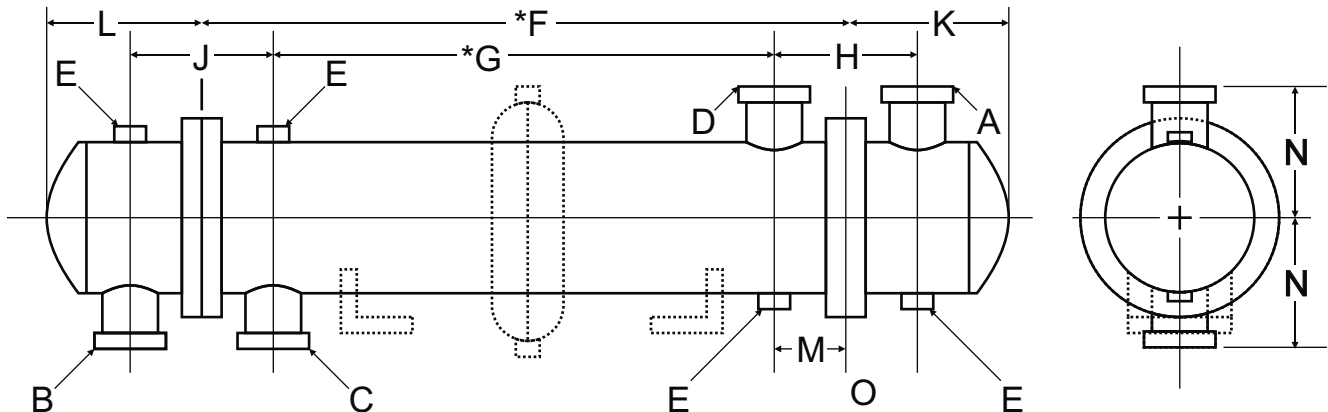


Standardized Fixed Tubesheet Exchangers

Single Pass

CMS Single Pass Standardized Fixed Tubesheet Exchangers have been manufactured to the specifications displayed. Units can be provided in accordance with ASME Sect. VIII, Sect. V, Sect. IX of the Boiler and Pressure Vessel Code, TEMA, API, HEI, and 3 A standards. In addition, our designs can incorporate all your specifications to insure compliance with your plant standards.

Shell O.D.	H	J	K	L	M	N	A	B	C	D	E
6 5/8	10	8 7/8	11 1/4	9 1/8	5	8 5/16	3	1	2	2	3/4
8 5/8	12	10 7/8	13	10 7/8	6	9 5/16	4	2	3	3	3/4
10 3/4	14	10 7/8	17	11 1/8	6	10 3/8	6	2	3	3	3/4
12 3/4	15	11 7/8	17 1/2	11 5/8	7	11 3/8	6	2	4	4	3/4
14	18	12 7/8	22	12 3/4	8	12	8	3	6	6	3/4
16	18	13 7/8	22 1/2	14 1/4	8	16	8	3	6	6	3/4
18	19	13 7/8	24 1/4	15	8	14	8	3	6	6	3/4
20	23	16 7/8	29	17 1/8	10	15	10	4	8	8	3/4
22	23	16 7/8	29 1/4	17 3/8	10	16	10	4	8	8	3/4
24	23	16 7/8	29 5/8	17 3/4	10	17	10	4	8	8	3/4
26	27	19 7/8	35 7/8	20 7/8	12	18	12	4	8	8	1
28	27	19 7/8	36 3/8	21 3/8	12	19	12	4	8	8	1
30	31	22 7/8	40	24 5/8	14	20	14	6	10	10	1
32	31	22 7/8	40 1/2	25 1/8	14	21	14	6	10	10	1
34	35	26	40 3/8	26 5/8	16	23	16	6	12	12	1
36	35	26	44 7/8	27 1/8	16	24	16	6	12	12	1
38	38	29	49 3/8	31 5/8	17	25	18	8	14	14	1
40	38	29	49 3/4	32	17	26	18	8	14	14	1
42	38	29	50 3/8	32 5/8	17	27	18	8	14	14	1

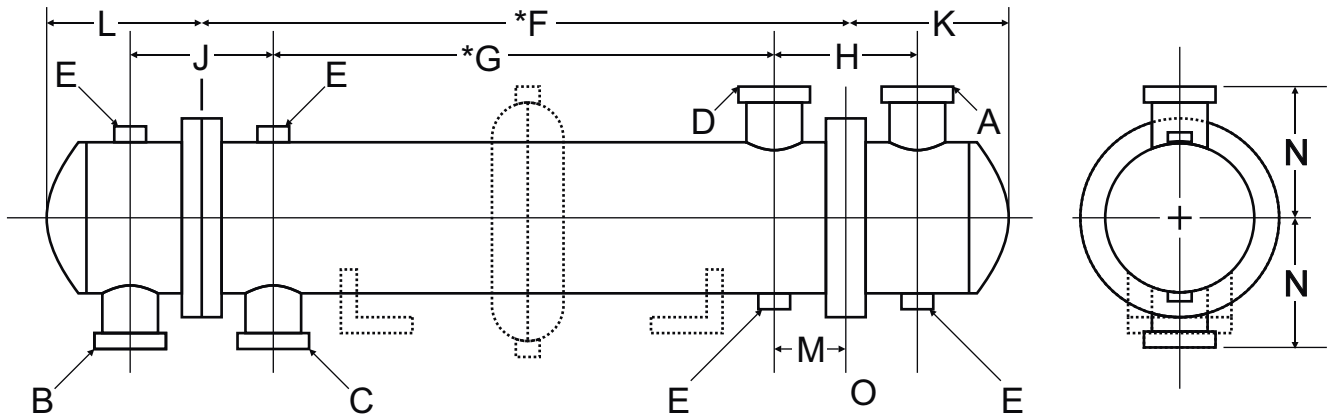


Standardized Fixed Tubesheet Exchangers

Single Pass Tube Side, 3/4" O.D. Tubes 15/16" Change In Pitch

CMS Single Pass Standardized Fixed Tubesheet Exchangers have been manufactured to the specifications displayed. Units can be provided in accordance with ASME Sect. VIII, Sect. V, Sect. IX of the Boiler and Pressure Vessel Code, TEMA, API, HEI, and 3 A standards. In addition, our designs can incorporate all your specifications to insure compliance with your plant standards.

Shell O.D.	No. Tubes	Square Feet Surface for Tube Length								
		4'-0"	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
6 5/8	31	24	37	49	61	8 5/16	85	98	110	122
8 5/8	55	43	65	87	108	9 5/16	151	173	195	216
10 3/4	85	67	100	134	167	10 3/8	234	267	300	334
12 3/4	126	99	149	198	248	11 3/8	346	396	446	495
14	154	121	182	242	302	12	423	484	545	605
16	212	167	250	334	417	16	584	667	751	834
18	268	211	316	422	528	14	739	845	951	1056
20	349	274	412	549	686	15	960	1098	1235	1372
22	421	331	497	663	829	16	1160	1326	1492	1658
24	502	395	592	790	988	17	1382	1580	1778	1976
26	596	468	702	936	1170	18	1638	1872	2106	2340
28	696	546	820	1093	1366	19	1912	2186	2459	2732
30	815	640	960	1280	1600	20	2240	2560	2880	3200
32	929	730	1094	1459	1824	21	2552	2918	3283	3648
34	1054	828	1242	1655	2069	23	2897	3310	3724	4138
36	1181	927	1391	1854	2318	24	3245	3709	4172	4636
38	1337	1050	1575	2100	2625	25	3674	4199	4724	5249
40	1475	1158	1737	2316	2895	26	4054	4633	5215	5791
42	1639	1287	1930	2574	3217	27	4504	5148	5791	6435



CMS Heat Transfer Inc.

At CMS Industries we'll put our years of heat transfer "know-how" to work for you. In addition to sizing a shell & tube heat exchanger for your specific heat transfer needs, our engineers incorporate measures to insure ease of maintenance and longer equipment life - this equates to both smaller initial capital and maintenance costs over the years.

Code conformance and certification

Our products are engineered to meet rigid standards, and quality is always the first priority. Units can be provided in accordance with ASME Sect. VIII, Sect. V and Sect. IX of the Boiler and Pressure Vessel Code, TEMA, API, HEI, and 3A standards. In addition, our designs can incorporate all of your specifications to insure compliance with your plant standards.

Engineering support

It is our engineering department's primary goal to provide the best technical support required to solve your heat transfer problems. With the aid of state-of-the-art integrated software our engineers can rate and size the appropriate equipment for your application.

Mechanical design

Our products can be fabricated in a variety of materials including cupro-nickel, carbon and stainless steels and nickel alloys. Correct material selection will insure long life of the exchanger even in the most corrosive services. In addition, our engineers will incorporate the appropriate configuration in the design of your unit to insure ease of maintenance and the ability to withstand the most vigorous thermal and mechanical demands.

Process design

At CMS we have the expertise to solve all of your process heat transfer needs. With the use of state-of-the-art software, we can size and rate a shell and tube heat exchanger to your exact specifications. Single and two-phase-flows, liquid-to-liquid, single and multiple condensable in the presence of or absence of non-condensables, no process is too complex. Our engineers will provide the technical support to insure a proper design. It's like having a process engineer on staff.

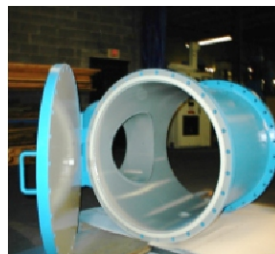
Service beyond the expected



Experienced in all phases of heat exchange technologies

Shell and Tube Heat Exchangers

- Oil Coolers
- Fuel Oil Pre-Heaters
- Aftercoolers
- Steam Converters
- Condensers
- Kettles
- Thermo-Syphon Reboilers
- Falling Film Evaporators



For "Those Problems That Won't Go Away"

- Custom Design
- Process Design Support
- Design of All TEMA Configurations



For "Old Reliable"

- Replacement Bundles
- XLE Units
- Generator Coolers
- OEM Replacement Units
- Retubing & Reconditioning

